

IN THE CLAIMS:

Please cancel claims 1-34 without prejudice or disclaimer, a substitute new claims 35-68 therefor as follows:

Claims 1-34 (Cancelled).

35. (New) An optical cable comprising at least one tubular element of polymeric material and at least one transmission element housed within said tubular element, wherein said polymeric material is made from a polymeric composition comprising:

- (a) at least one olefin polymer;
- (b) at least one inorganic filler; and
- (c) at least one olefin polymer including at least one functional group;

wherein said at least one olefin polymer including at least one functional group (c) is present in the polymeric composition in an amount of about 3 parts by weight to about 10 parts by weight with respect to 100 parts by weight of the olefin polymer (a) -

36. (New) The optical cable according to claim 35, wherein said at least one olefin polymer including at least one functional group (c) is present in the polymeric composition in an amount of about 5 parts by weight to about 8 parts by weight with respect to 100 parts by weight of the olefin polymer (a).

37. (New) The optical cable according to claim 35, wherein said tubular element is a buffer tube housing said at least one transmission element.

38. (New) The optical cable according to claim 37, wherein said buffer tube is defined by a peripheral wall having a thickness lower than about 0.5 mm.

39. (New) The optical cable according to claim 38, wherein said buffer tube is defined by a peripheral wall having a thickness lower than about 0.2 mm.

40. (New) The optical cable according to claim 39, wherein said buffer tube is defined by a peripheral wall having a thickness down to about 0.1 mm.

41. (New) The optical cable according to claim 35, wherein said polymeric material has a ultimate tensile strength lower than about 12 MPa.

42. (New) The optical cable according to claim 41, wherein said polymeric material has a ultimate tensile strength of about 5 MPa to about 10 MPa.

43. (New) The optical cable according to claim 35, wherein said polymeric material has an elongation at break lower than about 100%.

44. (New) The optical cable according to claim 43, wherein said polymeric material has an elongation at break of about 30% to about 80%.

45. (New) The optical cable according to claim 35, wherein the olefin polymer (a) is selected from semi-crystalline or crystalline α -olefin polymers including homopolymers, copolymers, terpolymers, or mixtures thereof, containing one or more monomeric units.

46. (New) The optical cable according to claim 45, wherein the α -olefin polymers contain from 2 to about 20 carbon atoms.

47. (New) The optical cable according to claims 45, wherein the olefin polymer (a) is selected from: low density polyethylene (LDPE), high density polyethylene (HDPE), linear low density polyethylene (LLDPE), ultra low density polyethylene (ULDPE), polypropylene, isotactic polypropylene, high and low density poly-1-butene, poly-4-methyl-1-pentene, ultra-low-molecular weight polyethylene, ethylene-based

ionomers, poly-4-methyl-1-pentene, ethylene propylene copolymers, ethylene-propylene-diene copolymers (EPDM), copolymer of ethylene and/or propylene with other copolymerizable monomers, ethylene-1-butylene copolymer, ethylene-vinyl acrylate copolymer, ethylene-methyl acrylate copolymer, ethylene-butyl acrylate copolymer, ethylene-ethyl acetate copolymer, ethylene-vinyl acetate copolymer, propylene-4-methyl-1-pentene copolymer, ethylene-vinyl alcohol copolymer, ethylene acrylic elastomers, ethylene-methyl acrylate-acrylic acid terpolymers, or mixtures thereof.

48. (New) The optical cable according to claim 35, wherein the inorganic filler (b) is selected from: hydroxides, hydrated oxides, salts or hydrated salts of metals, or mixtures thereof.

49. (New) The optical cable according to claim 48, wherein the inorganic filler (b) is selected from: magnesium hydroxide, aluminum hydroxide, aluminum oxide, alumina trihydrate, magnesium carbonate hydrate, magnesium carbonate, magnesium calcium carbonate hydrate, magnesium calcium carbonate, or mixtures thereof.

50. (New) The optical cable according to claims 48, wherein the inorganic filler (b) is in the form of coated particles.

51. (New) The optical cable according to claim 50, wherein the inorganic filler (b) is coated with saturated or unsaturated fatty acids containing from 8 to 24 carbon atoms, or metal salts thereof.

52. (New) The optical cable according to claim 48, wherein the inorganic filler (b) is present in the polymeric composition in an amount of about 40 parts by weight to about 200 parts by weight with respect to 100 parts by weight of the olefin polymer (a).

53. (New) The optical cable according to claim 52, wherein the inorganic filler (b) is present in the polymeric composition in an amount of about 75 parts by weight to about 150 parts by weight with respect to 100 parts by weight of the olefin polymer (a).

54. (New) The optical cable according to claims 35, wherein the olefin polymer including at least one functional group (c) is selected from:

(c₁) at least one terpolymer of at least one α -olefin, at least one acrylic acid ester, and at least one α,β -olefinically unsaturated dicarboxylic acid reagent or its derivatives, anhydrides, metal salts, imides, esters, or at least one glycidyl acrylate;

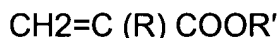
(c₂) at least one terpolymer of ethylene, at least one α,β -olefinically unsaturated dicarboxylic acid anhydride, and at least one vinyl ester of a saturated carboxylic acid; and

(c₃) at least one olefin polymer grafted with at least one ethylenically unsaturated monomer.

55. (New) The optical cable according to claim 54, wherein the terpolymer (c₁) comprises about 50% by weight to about 99% by weight of at least one α -olefin, about 0.5% by weight to about 40% by weight of at least one acrylic acid ester, and about 0.3% by weight to about 10% by weight of at least one dicarboxylic acid reagent, or of at least one glycidyl acrylate.

56. (New) The optical cable according to claim 54, wherein in the terpolymer (c₁), the α -olefin is selected from α -olefins containing from 2 to about 20 carbon atoms.

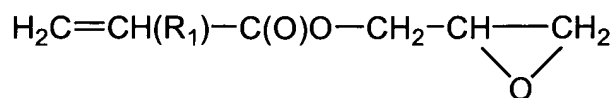
57. (New) The optical cable according to claim 54, wherein in the terpolymer (c₁) the acrylic acid ester is selected from compounds having the following formula:



wherein R represents hydrogen, or a lower alkyl group containing from 1 to 4 carbon atoms, methyl or ethyl, and R' represents a lower alkyl group having from 1 to 6 carbon atoms.

58. (New) The optical cable according to claim 54, wherein in the terpolymer (c₁) the α,β-olefinically unsaturated dicarboxylic acid reagent or its derivatives are selected from: maleic acid, maleic anhydride, fumaric acid, mesaconic acid, itaconic acid, citraconic acid, itaconic anhydride, citraconic anhydride, monomethyl maleate, monosodium maleate, or mixtures thereof.

59. (New) The optical cable according to claim 54, wherein in the terpolymer (c₁), the glycidyl acrylate is selected from compounds having the following formula:



wherein R₁ represents hydrogen or a lower alkyl group containing from 1 to 6 carbon atoms.

60. (New) The optical cable according to claim 54, wherein the terpolymer (c₁) is selected from: ethylene-methyl acrylate-maleic anhydride, ethylene-ethyl acrylate-maleic anhydride, ethylene-butyl acrylate-maleic anhydride, propylene-methyl acrylate-maleic anhydride, propylene-ethyl acrylate-maleic anhydride, ethylene-methyl acrylate-glycidyl methacrylate, ethylene-methyl acrylate-glycidyl acrylate, or mixtures thereof.

61. (New) The optical cable according to claim 54, wherein in the terpolymer (c₂), the α,β-olefinically unsaturated dicarboxylic acid anhydride is selected from: citraconic anhydride, itaconic anhydride, tetrahydrophthalic anhydride, maleic anhydride, or mixture thereof.

62. (New) The optical cable according to claim 54, wherein in the terpolymer (c_2), the vinyl ester of a saturated carboxylic acid is selected from vinyl ester of a saturated carboxylic acid containing from 2 to 6 carbon atoms.

63. (New) The optical cable according to claim 61, wherein the terpolymer (c_2) is ethylene-vinyl acetate-maleic anhydride.

64. (New) The optical cable according to claim 54, wherein in the olefin polymer grafted with at least one ethylenically unsaturated monomer (c_3), the olefin polymer is selected from: homopolymers of ethylene, homopolymers of propylene, copolymers of ethylene and propylene, terpolymers of ethylene, terpolymers of propylene and terpolymers of dienes (EPDM), copolymers of ethylene with at least one C_3 - C_{10} hydrocarbon α -olefin, copolymers of ethylene and vinyl acetate, alkyl acrylate or alkyl methacrylate.

65. (New) The optical cable according to claim 64, wherein the ethylenically unsaturated monomer is selected from ethylenically unsaturated carboxylic acids or derivatives thereof, ethylenically unsaturated carboxylic acid anhydrides, or mixture thereof.

66. (New) The optical cable according to claim 65, wherein the carboxylic acids are: acrylic acid, methacrylic acid, maleic acid, fumaric acid, itaconic acid, crotonic acid, or mixtures thereof.

67. (New) The optical cable according to claim 65, wherein the anhydrides are: itaconic anhydride, maleic anhydride, substituted maleic anhydride, nadic methyl anhydride, tetrahydrophthalic anhydride, or mixture thereof.

68. (New) The optical cable according to claim 65, wherein the unsaturated carboxylic acid derivatives are: salts, amides, imides or esters, mono- and disodium maleate, acrylamide, maleimide, glycidyl methacrylate, dimethyl fumarate, or mixtures thereof.